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Adopting for the comparison stars the magnitudes given in vol. lii. p. 431, we have for the magnitude of *Nova Aurigæ* :

1899		h		
April	1,	9½	13·5	Observer C.
	10,	10	13·3	,, R.
1900		h		
Oct.	4,	10¾	14·1	,, R.
Nov.	17,	10	13·9	,, R.
Dec.	13,	7	13·8	,, R.

Observers : R. Mr. Robinson.
C. Mr. McClellan.

The mean magnitudes from 1892 to 1900 are :

1892	4·5 to < 14·0	Feb. 3 to March 31
,,	9·5 to 9·8	Sept. 8 to end of year
1893	9·7	
1894	9·7	
1895	9·7	
1896	...	
1897	11·4	
1898	12·0	
1899	13·4	
1900	13·9	

Radcliffe Observatory, Oxford:
1901 *June* 13.

Further Observations of the New Star in Perseus made at the Radcliffe Observatory, Oxford.

(*Communicated by Arthur A. Rambaut, M.A, Sc.D., F.R.S., Radcliffe Observer.*)

This paper contains the results of observations upon the brightness and colour of the new star in *Perseus* made at the Radcliffe Observatory since the date of the last meeting of the Society, and is in continuation of the Notes, on the same subject, already communicated to the Society and published in the *Monthly Notices* for March, April, and May.

With the exception of two observations made by Mr. Robinson on May 12 and 14, all the estimations were made with

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telescopic aid. After May 18 the star could no longer be followed with the Barclay Equatorial, and accordingly from that date most of the observations were made with the $7\frac{1}{2}$-inch Heliometer.

The observations were for the most part difficult owing to the amount of twilight and the low altitude of the star. Between May 11 and 24 the sky was generally very clear, and an almost continuous series of observations was obtained.

The observations this month continue to indicate the relationship already pointed out between the colour and magnitude of the star, on the whole the redness of the star increasing as the brightness is diminished.

The light period continues to show considerable fluctuations. Between May 11 and 24 there are two periods of four or five days followed by a three days' period.

The amplitude of the oscillation in brightness appears to be about $1\frac{1}{2}$ magnitudes, as before; while the mean magnitude about which it oscillates has remained unaltered since April 20.

TABLE I.

List of Stars used for Comparison with Nova Persei.

Ref. No.	Name of Star.	Harvard Photom. Mag.	Ref. No.	Name of Star.	Harvard Photom. Mag.
40	κ Persei	3·95	53	36 Persei	5·40
42	ν Persei	4·00	54	Arg. Z. + 44°, 734	6·04
48	σ Persei	4·39	55	Arg. Z. + 44°, 648	6·47
50	*l* Persei	4·84	56	Arg. Z. + 43°, 818	5·97
52	30 Persei	5·37	59	Arg. Z. + 42°, 795	6·30*

* Harvard Photom. D.M.

TABLE II.

Means of Estimations of Magnitude of Nova Persei.

G.M.T. 1901.	h	m	Observer.	Reference Stars.	Mean Mag.	Adopted Mag. for the Night.
May 11	9	0	R.	56	6·10	6·05
	9	5	C.	56	6·00	
12	9	53	W.	52, 50, 55, 56, 53	5·36	5·20
	10	0	C.	50, 52	5·05	
	10	5	R.	50	5·00	
13	8	35	R.	50, 42	4·40	4·50
	10	0	W.	50, 48, 40	4·60	
14	9	53	C.	52, 56	5·55	5·55
	10	0	R.	50	(5·1)	
15	8	30	R.	52, 56	6·00	6·00

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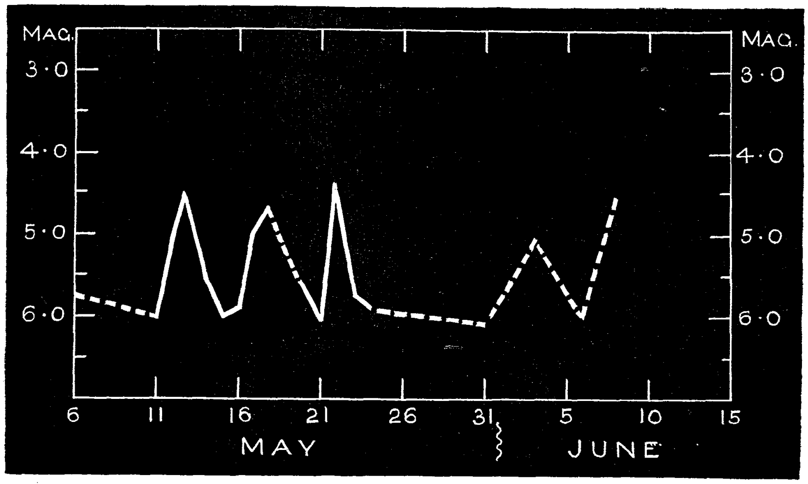
G.M.T.			Observer.	Reference Stars.	Mean Mag.	Adopted Mag. for the Night.
1901.	h	m				
May 16	10	0	C.	52, 56	5·90	5·90
	10	15	R.	56, 52	5·90	
17	10	15	R.	52, 56	5·00	5·00
18	8	20	R.	42	4·80	4·65
	10	0	C.	50	4·50	
20	9	45	C.	52, 56	5·70	5·67
	9	47	R.	52, 56	5·60	
	9	47	R.	52, 56	5·70	
21	9	53	C.	52, 56	6·05	6·05
22	11	5	R.	42, 50, 40	4·40	4·40
23	9	45	R.	52, 56	5·70	5·70
24	9	45	R.	52, 56, 54, 59	5·88	5·88
31	9	45	R.	54, 56	6·10	6·10
June 3	11	0	R.	50, 52	5·05	5·05
6	10	30	R.	54, 56	6·00	6·00
8	11	0	R.	52, 50, 42, 40	4·57	4·57



Magnitudes of Nova Persei.

Observers' Notes on the Estimations of Magnitude.

1901.

May 12. No. 52 not visible to the naked eye, except perhaps momentarily. Sky very clear, but objects low. Twilight rather strong. (R.)

May 13. Very difficult; strong twilight. (R.) Half-weight to No. 48; this star is much higher than Nova. (W.) Could not see the Nova with the naked eye at 10^{h}; Nos. 40 and 42 were only occasionally visible through haze. (R.)

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1901.
May 14. Observed with Marlborough, power 80. Nos. 50 and 52 were also easily visible in the "finder," but the Nova was only seen with some difficulty. Sky clear. (C.) Suspected a glimpse of the Nova with the naked eye at 10^h, when I estimated it to be fainter than No. 50 by 0·3. This observation is doubtful, but the Nova was certainly not brighter than magnitude 5. Sky very clear. (R.)
May 16. Observed with Marlborough, power 80. In "finder" Nova and No. 56 were equally difficult to pick up, but Nos. 52 and 50 were easily seen. (C.)
May 17. Sky hazy and cloudy; observations very difficult.
May 18. Twilight strong, and haze prevalent low down. Observation only approximate. (R.) Sky hazy; very difficult estimation. (C.)
May 20. Sky clear. (C.) The first observation by R. was taken with the Heliometer 7·5-inch; the second with the 1·83-inch "finder."
May 21. Sky very clear; many small stars visible near.
May 22. Observed near lower culmination. Altitude 5°.
May 23. In the 7·5-inch (Heliometer) the image of the Nova was equal in size, but inferior in brightness to No. 52. Sky very clear.
May 24. Sky very clear. A star (Arg. Z. + 42°, 803) follows No. 59 by 1^m, and is south. It is fainter than No. 59 by 0·5 mag.
May 31. Flickering images.
June 3. Images good at times; objects low.
June 8. Observed near meridian (sub polo). No. 40 is more than a magnitude brighter than 42, which is 3° lower in the haze. The magnitude estimations are sensibly confirmed by observer C. with the same telescope.

Observers' Remarks on Colour of Nova and Comparison Stars.

1901.
May 11. With the 10-inch Barclay and power 45 Nova is orange with very red fringe. (R.) Very red in 10-inch. Sky very hazy. Atmospheric conditions similar to those at time of sunset, when Sun was of a deep orange tint. (C.)
May 12. Exceptionally clear. Nova's colour in the 1$\frac{3}{4}$-inch is a much fainter red than I have seen for more than a month. The stars were very low, and No. 14 exhibited rapidly changing colours of the spectrum. Images generally very good. (W.)
May 13. Sky is not nearly so clear as last night; there is an absence of red tint from Nova; I could detect none in the 1$\frac{3}{4}$-inch. The observations are a little doubtful owing to small altitude. (W.) Nova in the Barclay has a large central yellow disc with small but bright red wings. No. 42 is yellowish this evening. (R.)
May 15. Redness of Nova in the Barclay becomes more apparent as the twilight wanes.
May 16. Nova very red in Marlborough. (C.) Nova red in Marlborough. (R.)
May 20. Nova very red in Marlborough. (C.) Contrast in colours of Nova and comparison stars with the Heliometer. Nova red. (R.)
May 21. Nova red in Marlborough.
May 22. Nova red in Heliometer, and No. 40 reddish-yellow. Objects low.
May 23 and 24. Nova red in Heliometer.
June 6. Nova not very red in Heliometer. Objects low.
June 8. Nova and No. 40 red in Heliometer. Low in haze.

The observers were:

Mr. Wickham, indicated by W.
Mr. Robinson, ,, ,, R.
Mr. McClellan, ,, ,, C.

Radcliffe Observatory, Oxford:
1901 *June* 13.

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Observations of Nova Persei made at Birr Castle Observatory, Parsonstown. By the Earl of Rosse, F.R.S.

During the time that *Nova Persei* was visible every opportunity was taken for observing that interesting object, but I happened to be in England at the time and no authentic information as to its existence reached us until after its maximum brightness had been much reduced, and subsequently the extreme uncertainty of weather which prevailed at that time much impeded observations. For that reason, however, the work of others was also fragmentary, and in the hope of filling gaps rather than of adding any important matter the notes made at the time from observations principally by Dr. Boeddicker are sent in. Spectroscropic observations were not satisfactory, the instruments having lain unused for some years and having deteriorated with time.

With a direct-vision prism, however, placed between the eye and the eyepiece of the 3-foot reflector, the red line was quite unmistakable. Others in the more refrangible regions were at times satisfactorily seen, but it was not always easy with the means at our disposal to distinguish between a bright line and an absence of dark lines in a continuous spectrum.

Through the whole time that the star was visible the prevailing easterly wind and the accompanying thin clouds generally diffused the star's light and destroyed definition of prism used without a slit. No photography was attempted.

1901 March 1, 10^{h} M. T. Greenwich. A hurried estimate between clouds. α *Persei* $\geq$ *Nova.*

1901 March 2, 10^{h} to $10^{h}\ 50^{m}$. Sky bad. Passing clouds and haze. Examination during bright interval. α *Persei* > *Nova.* *Nova* distinctly red. With direct-vision spectroscope before eyepiece, the red very intense at its extreme end, cut off from yellow by very decided dark bands or lines. Further dark lines, very conspicuous, in blue, also—but fainter, more suspected —in violet.

1901 March 3. Passing clouds. α *Persei* > *Nova*; no perceptible change in magnitude since last night. Spectrum magnificently seen with cylindrical lens. Very bright line in red, separated from yellow by a broad, dark band (darkest towards red). Faint narrow dark line in orange, also one between yellow and green. Green fairly uniform, very intense and well defined towards blue, where it is abruptly cut off by a broad dark band. This is followed by a sharply defined bright band (or are there two?) in blue. Very dark band between